

Emergency Medical Responder: A Skills Approach

Fifth Canadian Edition



FIFTH CANADIAN EDITION

EMERGENCY MEDICAL RESPONDER

A SKILLS APPROACH

MEETS PARAMEDIC ASSOCIATION OF CANADA'S
NATIONAL OCCUPATIONAL COMPETENCY PROFILE



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Chapter 4

The Human Body

Objectives (1 of 2)

- Explain the four terms of position and the twelve terms of anatomical direction and location.
- Describe the three main body cavities and identify the organs they contain.



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Objectives (2 of 2)

- Describe the anatomy and function of the major body systems, including the musculoskeletal, respiratory, circulatory, nervous, skin, digestive, urinary, endocrine, and reproductive systems.

Anatomical Terms (1 of 4)

- Anatomical Position

Anatomical Terms (2 of 4)

- Supine Position



Figure 4-1a Supine position.

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Anatomical Terms (3 of 4)

- Prone Position



Figure 4-1b Prone position.

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Anatomical Terms (4 of 4)

- Lateral Recumbent (Recovery) Position



Figure 4-1c Right lateral recumbent position.

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Anatomical Directions (1 of 2)

Superior	Posterior
Inferior	Medial
Anterior	Lateral

Anatomical Directions (2 of 2)

Proximal	Deep
Distal	Internal
Superficial	External

Body Cavities (1 of 2)

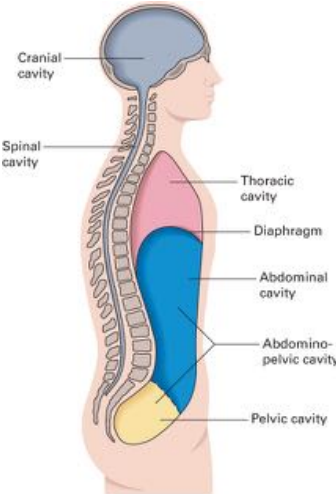


Figure 4-4 Main body cavities.

Body Cavities (2 of 2)

- Cranial
 - Brain
- Thoracic (Chest)
 - Lungs and Heart
- Abdominal
 - Digestive Organs
- Pelvic
 - Excretory and Reproductive Organs

Topographic Anatomy

- refers to the external landmarks of the body

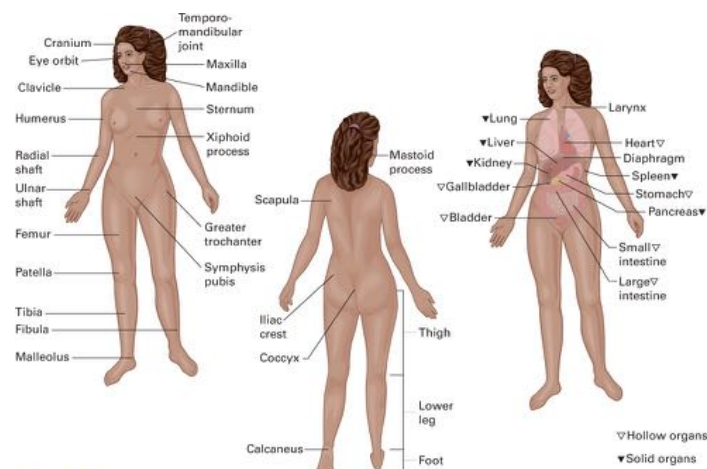


Figure 4-3 Topographic anatomy.

Body Systems

- Musculoskeletal (skeleton and muscles)
- Respiratory
- Circulatory
- Nervous
- Skin (Integumentary)
- Digestive
- Urinary
- Endocrine
- Reproductive

Musculoskeletal System (1 of 2)

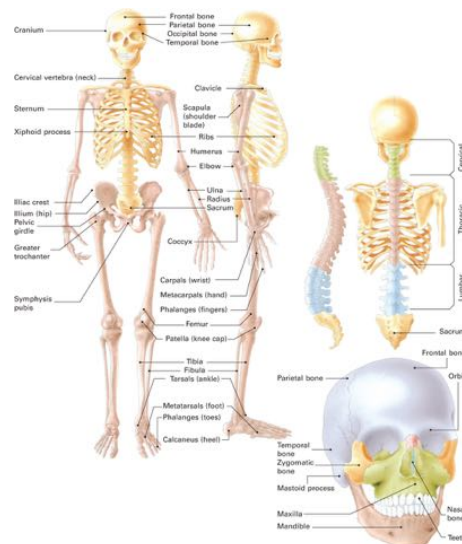


Figure 4-6 The skeletal system.

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Musculoskeletal System (2 of 2)

- Support & Protect
- Permit motion
- Flexible

Musculoskeletal System – Joints (1 of 2)

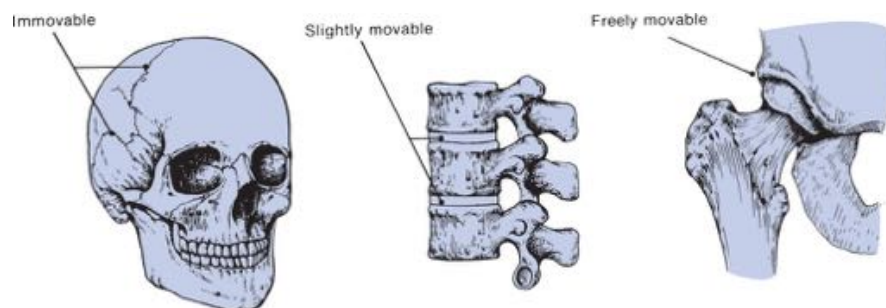


Figure 4-7 Three types of joints.

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Musculoskeletal System – Joints (2 of 2)

- Immovable
- Slightly Moveable
- Freely Moveable

Musculoskeletal System – Muscles (1 of 2)

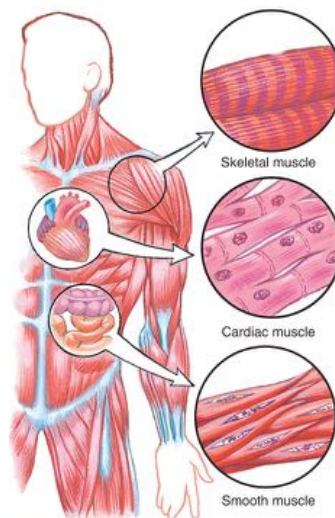


Figure 4-9 Three types of muscle.

Musculoskeletal System – Muscles (2 of 2)

- Skeletal
- Cardiac
- Smooth

Respiratory System (1 of 2)

- Delivers oxygen to the lungs and removes carbon dioxide
- Breathing in = inspiration
- Breathing out = expiration
- Inspiration + Expiration = Respiration

Respiratory System (2 of 2)

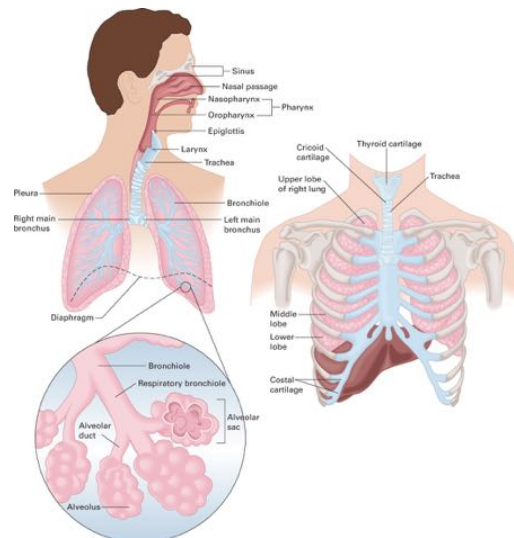


Figure 4-10 The respiratory system.

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Circulatory System (1 of 2)

- The circulatory system delivers oxygen and nutrients to the body's tissues and removes waste products.
- Heart
- Blood vessels
- Blood



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Circulatory System

(2 of 2)

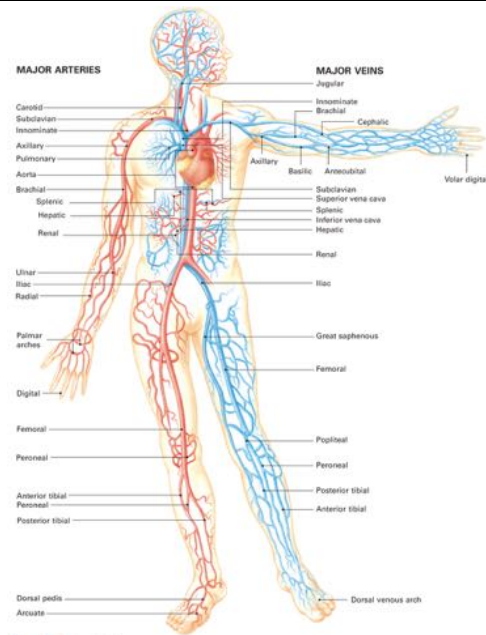


Figure 4-11 The circulatory system.

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Nervous System (1 of 2)

- Composed of:
 - Brain
 - Spinal cord
 - Nerves.

It has two major functions:

- Communication
- Control



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Nervous System (2 of 2)

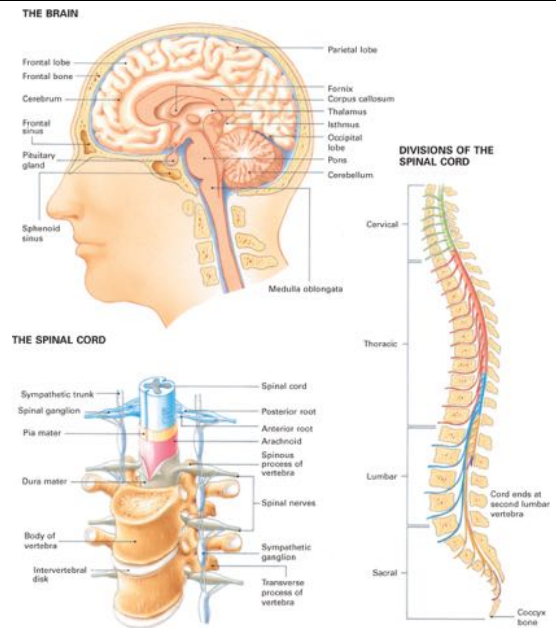


Figure 4-12a The central nervous system.

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Skin (Integumentary) (1 of 2)

- separates and protects the human body from the outside world.
- prevents dehydration
- regulates body temperature
- acts as the receptor organ for sensations of touch, pain, and temperature



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Skin (Integumentary) (2 of 2)

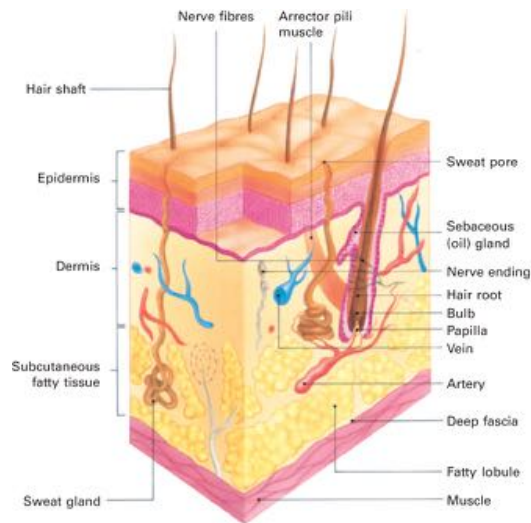


Figure 4-13 Structure of skin.

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Digestive System (1 of 2)

- Ingest and digest food and get rid of waste
- Digestion consists of two processes:
 - mechanical
 - chemical



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Digestive System (2 of 2)

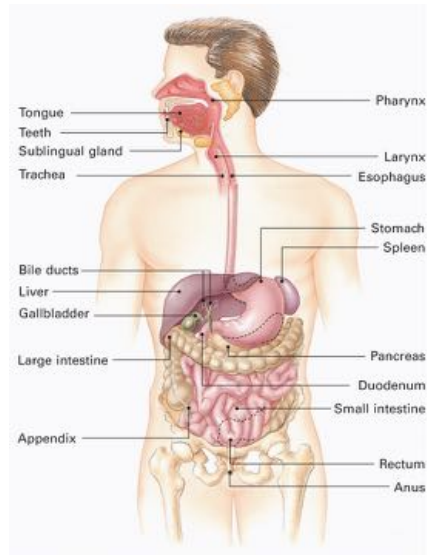


Figure 4-14 The digestive system.

Urinary System (1 of 2)

- filters the blood
- excretes waste from the body

Urinary System (2 of 2)

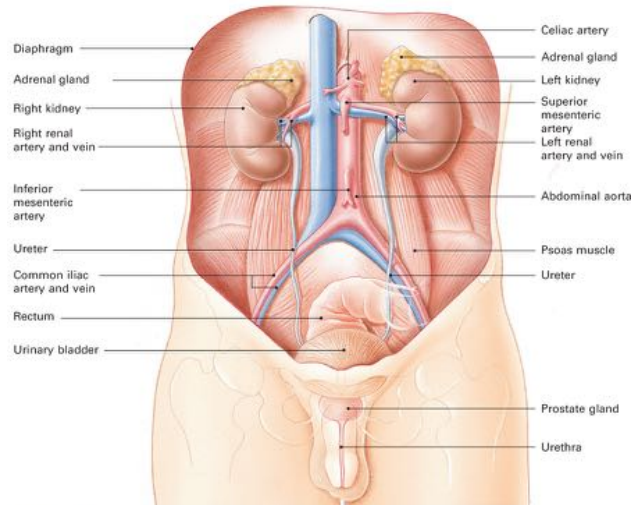


Figure 4-15 The urinary system.

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Endocrine System

- regulate the body by secreting hormones directly into the bloodstream



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